

Remarks

This application has been reviewed in light of the Office Action of February 23, 2005. Claims 1-21 are pending, and all claims are rejected. In response, claims 1 and 11 are amended; and the following remarks are submitted. Reconsideration of this application, as amended, is requested.

Claims 1, 2, 9, 11, and 15 are rejected under 35 USC 103 over Jamieson US Patent 5,446,581. Applicant traverses this ground of rejection.

The following principle of law applies to all sec. 103 rejections. MPEP 2143.03 provides "To establish prima facie obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)." [emphasis added] That is, to have any expectation of rejecting the claims over a single reference or a combination of references, each limitation must be taught somewhere in the applied prior art. If limitations are not found in any of the applied prior art, the rejection cannot stand. In this case, the single applied prior art reference clearly does not arguably teach some limitations of the claims.

Amended claim 1 recites in part:

"a front lens group having negative optical power,...wherein the front lens is not made of silicon and is not made of germanium".

Amended claim 11 recites in part:

"the front lens group comprises a front lens that is not made of silicon and is not made of germanium"

The only materials taught by Jamieson for his powered lenses are silicon and germanium. Sapphire is used for unpowered lenses in some instances, but not for the powered lenses and not for the front lens.

As stated in para. [0029] of the present application,

"Traditional infrared lens materials used for lenses of inverse-telephoto optical systems, silicon and germanium, have indices of refraction well above 3.3, and are not operable for the lenses of the present approach, except for their use in the one intermediate lens 50a. Additionally, the lens materials of the present approach have superior optical performance over a broader range of the infrared spectrum than do silicon and germanium."

That is, Applicant specifically excluded the lens materials taught by Jamieson for use as the front lens.

It is a well-established principle of law that a *prima facie* case of obviousness may not properly be based on a reference which teaches away from the present invention as recited in the claims.

"A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. In re Sponnoble, 160 USPQ 237 244 (CCPA 1969)...As "a useful general rule," ... "a reference that 'teaches away' can not create a *prima facie* case of obviousness." In re Gurley, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994)"

No case of obviousness may be established using the teachings of Jamieson.

Claims 2 and 9 incorporate the limitations of claim 1, and accordingly allowable over the teachings of Jamieson.

Claim 15 incorporates the limitations of claim 1, and accordingly allowable over

the teachings of Jamieson.

Applicant asks that the Examiner reconsider and withdraw this ground of rejection.

Claims 3-8, 10, 12-14, and 16-21 are rejected under 35 USC 103 as unpatentable over Jamieson in view of Kirkham US Patent 6,424,460. Applicant traverses this ground of rejection.

The following principle of law applies to all sec. 103 rejections. MPEP 2143.03 provides “To establish prima facie obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).” [emphasis added] That is, to have any expectation of rejecting the claims over a single reference or a combination of references, each limitation must be taught somewhere in the applied prior art. If limitations are not found in any of the applied prior art, the rejection cannot stand. In this case, the applied prior art references clearly do not arguably teach some limitations of the claims.

Claims 3-8 and 10 depend from claim 1, which recites in part:

“a front lens group having negative optical power,...wherein the front lens is not made of silicon and is not made of germanium”.

Jamieson teaches away from this limitation for the reasons stated earlier in relation to the rejection of claim 1, and which are incorporated here. Kirkham teaches that “The system (40) uses a silicon front lens A”, see Abstract. Kirkham thus also teaches away from the limitations of claim 1, and thence from the limitations of claims 3-8 and 10.

Claims 12-14 and 16 depend from claim 11, which recites in part:

Amended claim 11 recites in part:

“the front lens group comprises a front lens that is not made of silicon and is not made of germanium”

Jamieson teaches away from this limitation for the reasons stated earlier in relation to the rejection of claim 1, and which are incorporated here. Kirkham teaches that "The system (40) uses a silicon front lens A", see Abstract. Kirkham thus also teaches away from the limitations of claim 11, and thence from the limitations of claims 12-14 and 16.

Claim 17 recites in part:

"a front lens group having negative optical power, wherein the front lens group comprises a front lens having a refractive index of from about 2.2 to about 2.6".

Neither reference has any such teaching. Both references teach that the front lens is silicon (see preceding discussion), which has a refractive index of about 3.42, well above the maximum permitted refractive index for the front lens recited in claim 17.

Claim 17 further recites in part:

"an intermediate lens group that receives an infrared light beam from the front lens group, wherein the intermediate lens group comprises an intermediate lens having a refractive index of from about 1.35 to about 1.7".

The lenses of Jamieson are all either silicon or germanium, having respective refractive indices of about 3.42 and about 4.0, see Table VI of Jamieson. Kirkham teaches a number of different lens materials, see Table I. All of the lens materials taught by Kirkham have a refractive index of 2.25 or above, well outside the limits recited for the intermediate lens.

Thus, the combination of Jamieson and Kirkham cannot teach the limitations of claim 17, or of its dependent claims 18-21.

The present rejection is a sec. 103 combination rejection. It is well established that a proper sec. 103 combination rejection requires more than just finding teachings in the references of the elements recited in the claim (but which was not done here). To reach a proper teaching of an article or process through a combination of references, there must be

stated an objective motivation to combine the teachings of the references, not a hindsight rationalization in light of the disclosure of the specification being examined. MPEP 2143 and 2143.01. See also, for example, In re Fine, 5 USPQ2d 1596, 1598 (at headnote 1) (Fed.Cir. 1988), In re Laskowski, 10 USPQ2d 1397, 1398 (Fed.Cir. 1989), W.L. Gore & Associates v. Garlock, Inc., 220 USPQ 303, 311-313 (Fed. Cir., 1983), and Ex parte Levengood, 28 USPQ2d 1300 (Board of Appeals and Interferences, 1993); Ex parte Chicago Rawhide Manufacturing Co., 223 USPQ 351 (Board of Appeals 1984). As stated in In re Fine at 5 USPQ2d 1598:

"The PTO has the burden under section 103 to establish a prima facie case of obviousness. [citation omitted] It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references."

And, at 5 USPQ2d 1600:

"One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."

Following this authority, the MPEP states that the examiner must provide such an objective basis for combining the teachings of the applied prior art. In constructing such rejections, MPEP 2143.01 provides specific instructions as to what must be shown in order to extract specific teachings from the individual references:

"Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention when there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992)."

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"The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)."

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"A statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. Ex parte Levengood, 28 USPQ2d 1300 (Bd.Pat.App.& Inter. 1993)."

Here, there is set forth no objective basis for combining the teachings of the references in the manner used by this rejection, and selecting the helpful portions from each reference while ignoring the unhelpful portions. An objective basis is one set forth in the art or which can be established by a declaration, not one that can be developed in light of the present disclosure. The apparent basis set forth in the explanation of the rejection, in the last two lines of page 3 of the Office Action (and elsewhere), is that "...silicon and zinc sulfide are known as art recognized equivalents..." This statement is not factually correct and cannot be supported. Silicon has a refractive index of about 3.42 and zinc sulfide has a refractive index of about 2.25 (Kirkham, Table I). If the rejection is maintained, Applicant asks that the Examiner set forth the objective basis found in the references themselves for combining the teachings of the references, and for adopting only the helpful teachings of each reference and disregarding the unhelpful teachings of the reference.

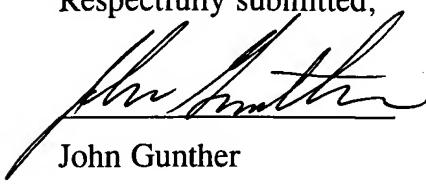
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Applicant submits that the application is now in condition for allowance, and requests such allowance.

Respectfully submitted,



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Agent for Applicant

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